

Federal Facility GIS Tool

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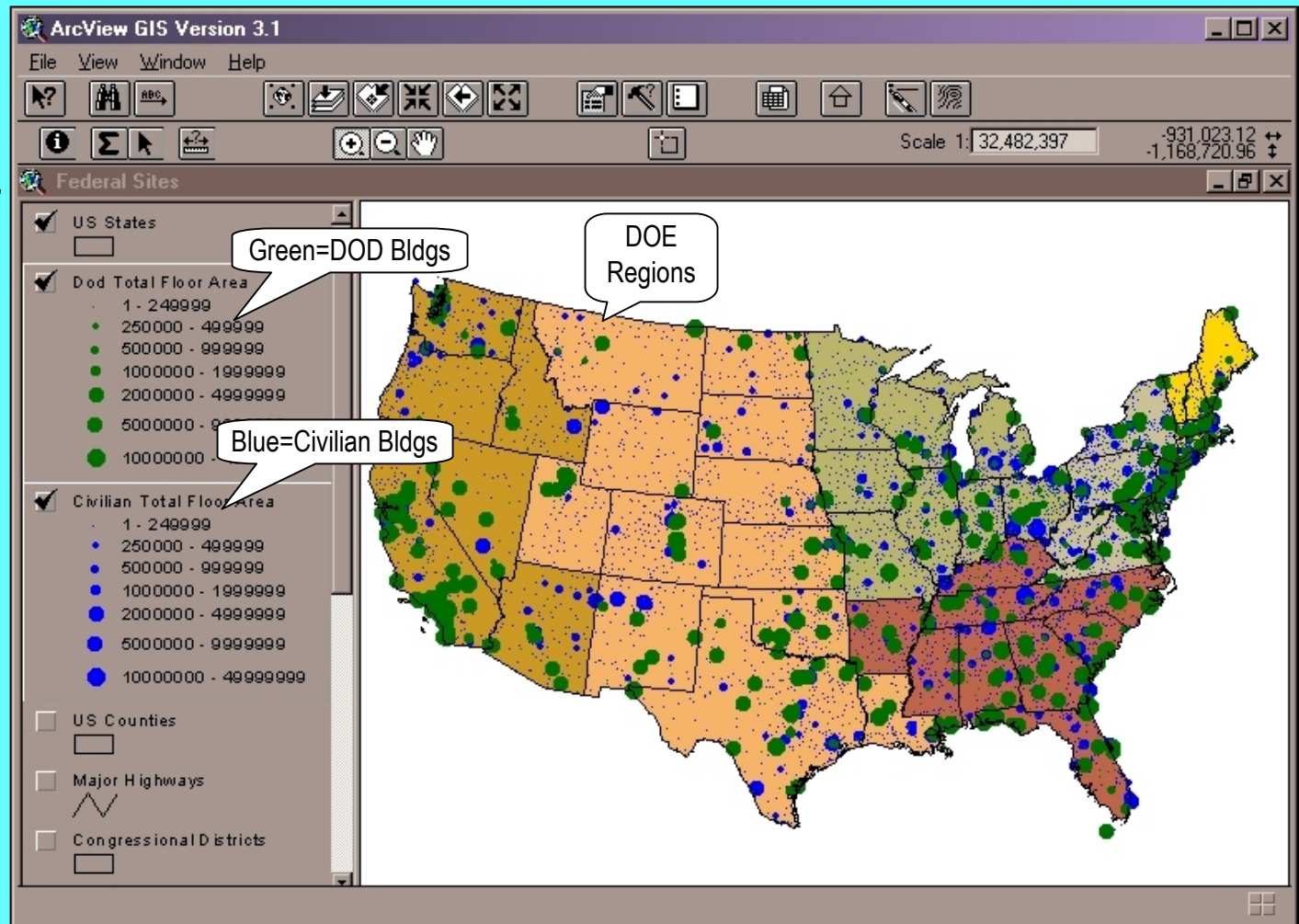
Produced for the U.S. Department of Energy
Federal Energy Management Program (FEMP)
By Pacific Northwest National Laboratory (PNNL)

Battelle

**U.S. Department of Energy
Pacific Northwest National Laboratory**

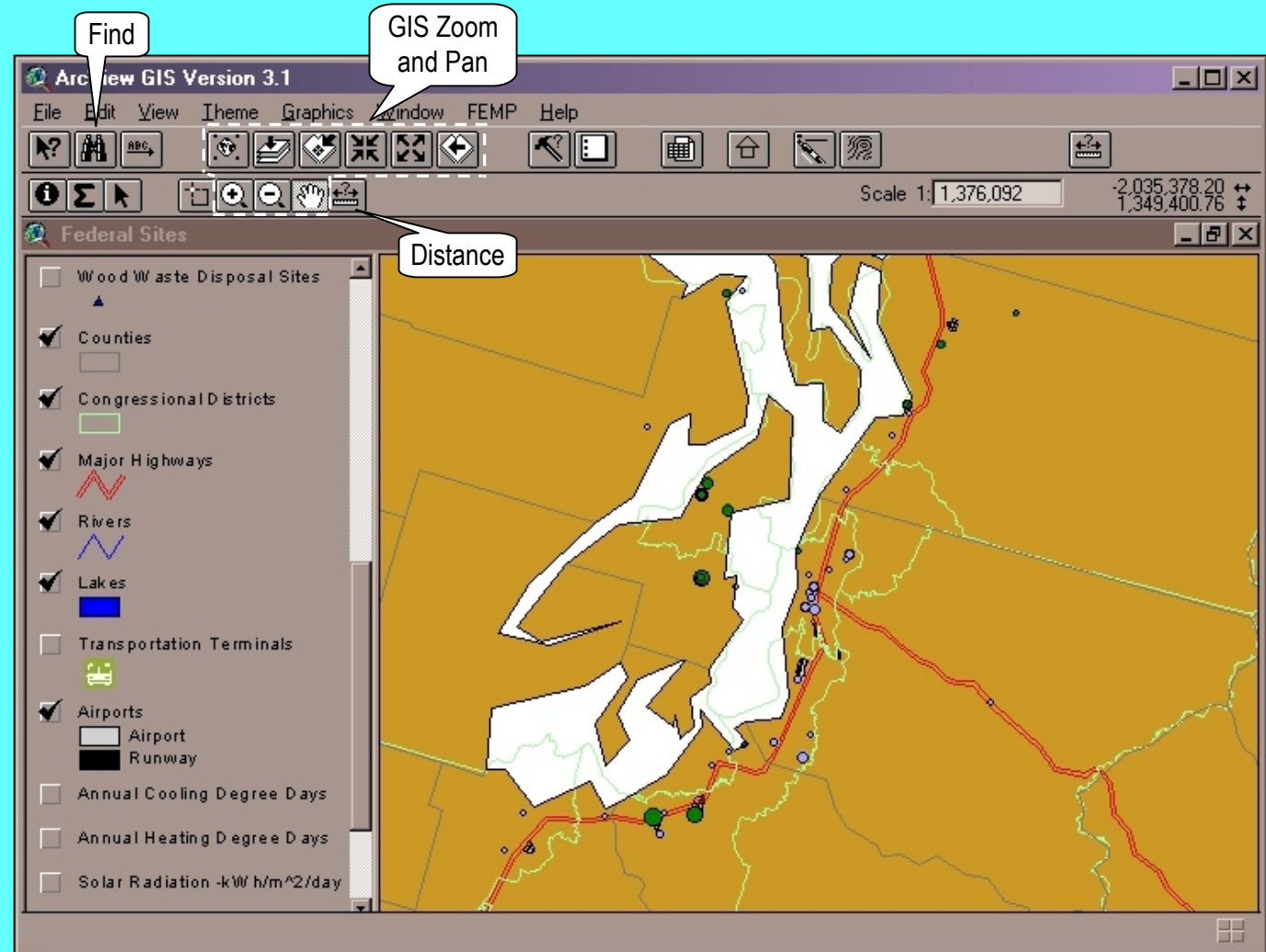
About the Tool

- ArcView™ (v.3.1) provides all the features of GIS.
- Portable, PC-based application
- Sites plotted by latitude / longitude values
- Displays facilities >10,000 ft²



Geographic Information System (GIS) Interface

- GIS interface with “slimmed-down” menus and tool bars
- GIS data
 - cities/counties
 - highways
 - population
 - rivers/lakes
 - transportation
 - Congressional districts
 - zip codes
 - more...



Site-Specific Information

- Federal facility data from GSA real property
- Energy use data from REEP (Army / Air Force), Navy / USMC, VA, HHS, DOE, NASA.

Identify

Site Building Data:

- Building count & floor area by use type; (e.g., office, housing, hospital, etc.)
- Contact information

Energy Data:

- Energy and water usage, cost, and by square foot
- Current year and baseline year
- End-use intensity

Renewable Energy:

- Estimate of site potential for solar and wind energy

Facility Information

Facility Name and Location
DOD-AR FORT RILEY FORT RILEY, KS 66442
1,879 buildings containing 12,959,199 square feet of floor space.

Energy Data
Energy Use Intensities: 2000: 137.000 MBtu/kSf
1985: 128.000 MBtu/kSf

Renewable Energy and Climate Data
Has MEDIUM potential for solar energy and MEDIUM potential for wind energy.
5254 annual heating degree days. 1374 annual cooling degree days.

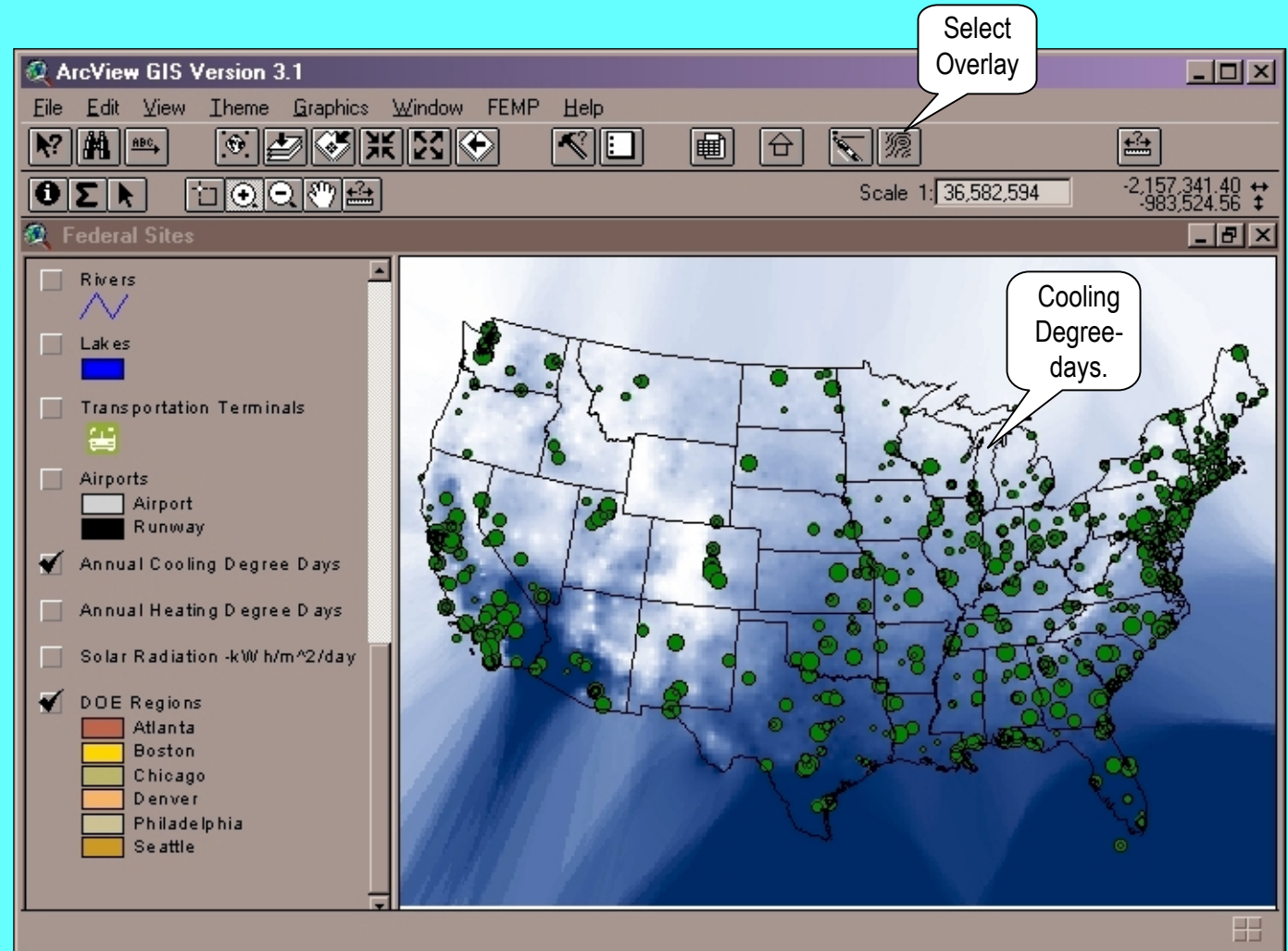
Financing projects through ESPC or Super-ESPC and DOE contacts for the region

View site information in table format

Site Details
REEP data
Ren. Energy Data
Financing
Select in Table
Cancel

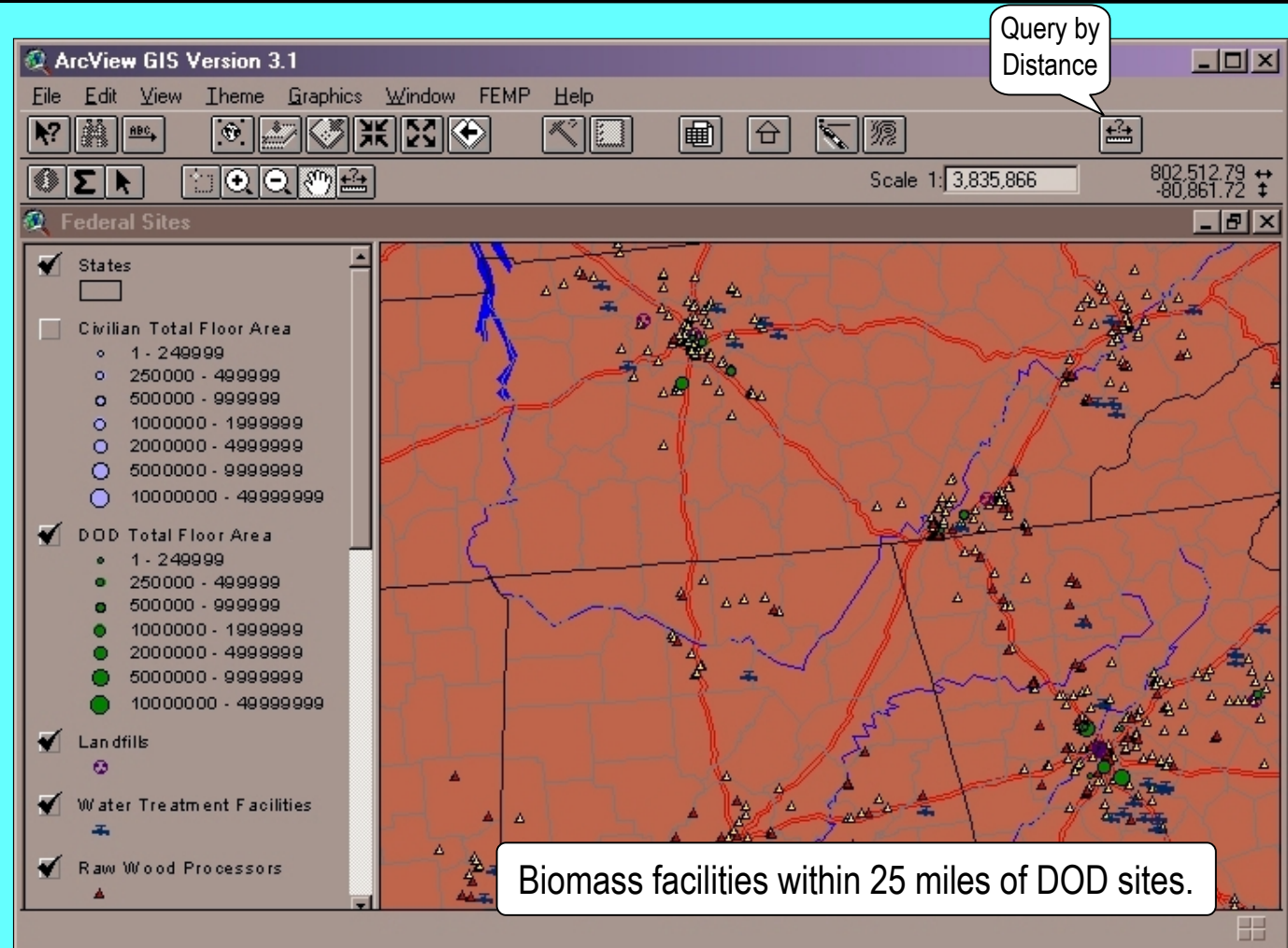
Overlays

- Overlay data
 - solar potential
 - wind potential
 - cooling degree-days
 - heating degree-days
- Can be used as a background or for use in queries



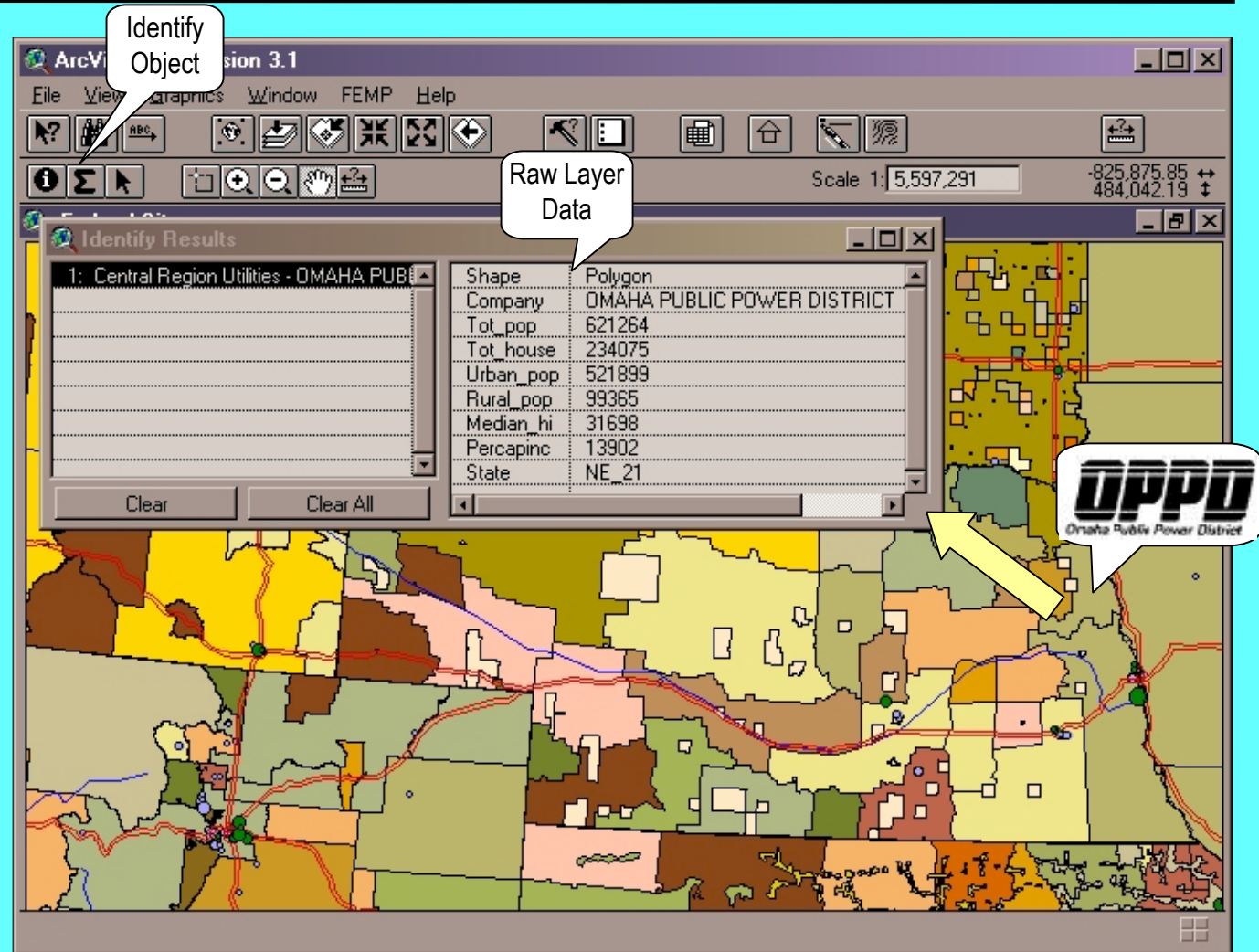
Biomass Data (NETL Partnership)

- Query by distance
- Biomass data from NETL
 - landfills
 - water treatment facilities
 - raw wood processors
 - wood-based products
 - wood-waste disposal sites



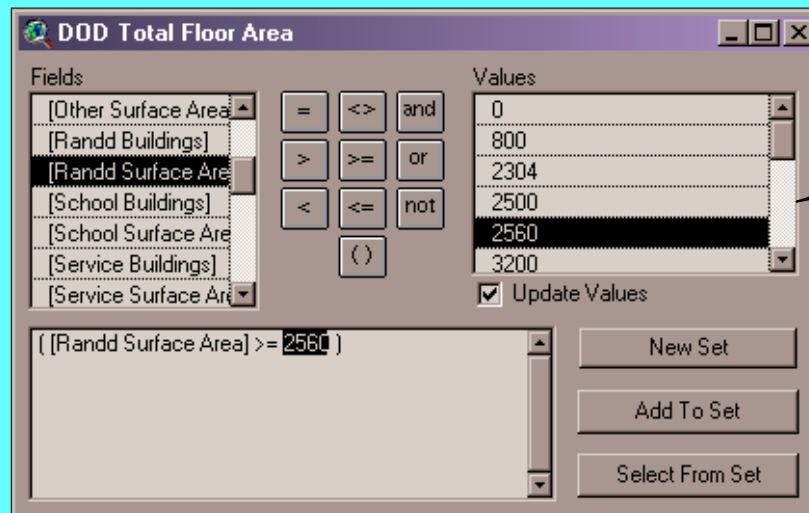
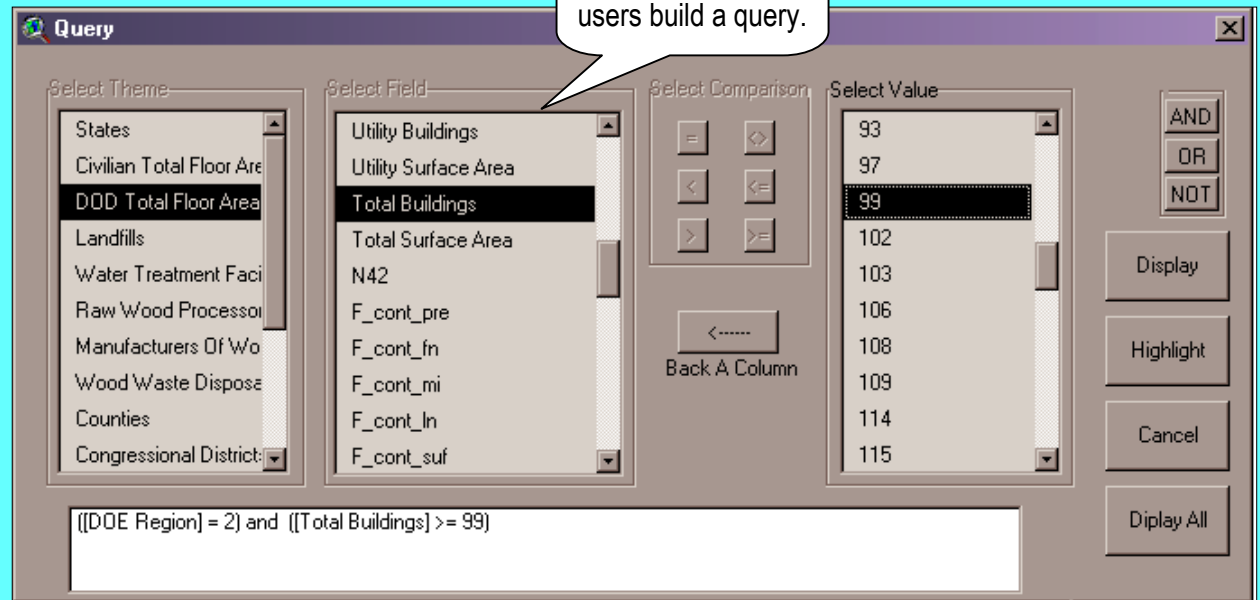
Utility Service Territories

- Utility service territories
 - additional license required
 - original intent was to link utility incentive programs
 - files are very large
 - Federal facilities may/may not be served by the closest utility



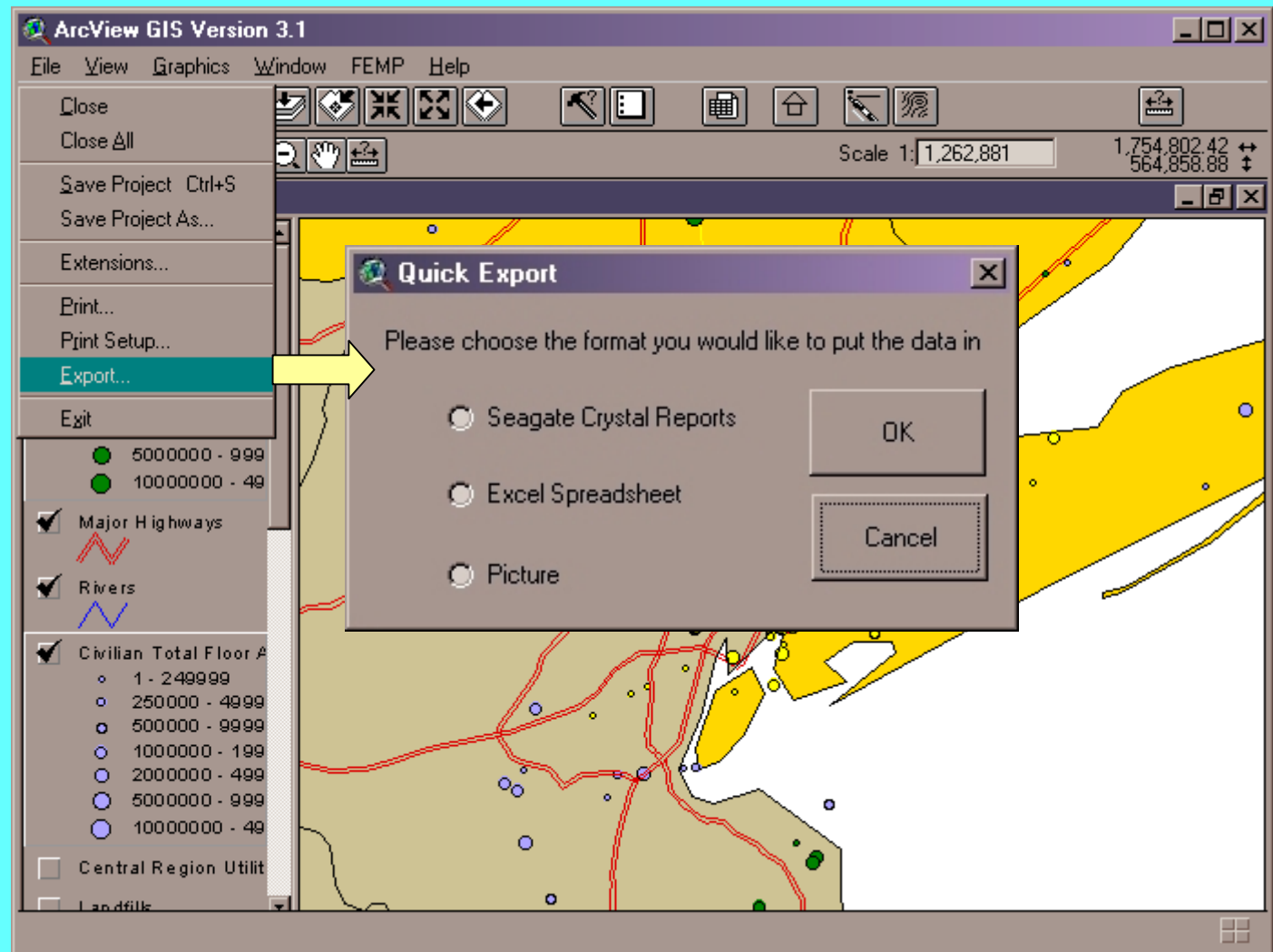
Queries

- Simple and complex queries of all data themes; selects sites in tables and on maps.
- Other data can be overlaid and used in the query (i.e., congressional districts, street maps, area or zip codes, etc.)



Outputs

- Save the current project to retain any customization.
- All graphics and maps can be exported to image files.
- Selected data in table format can be exported in a customizable report via Crystal Reports or as an Excel spreadsheet.



On-going Development

- GIS QuickSort tool is now available as MS Excel spreadsheet; has subset of data and query tools.
- Upgrade to ArcView version 8 has a potential for more features and license-free distribution.
- Update data tables with current Federal building data.
- Get energy data for missing agencies and/or facilities.
- Enhance data export and reporting features.
- Explore other suggestions!

For More Information

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